Clean Version of the Amended and New Claims

1. (Amended) A flexible variable rate vocoder for use in a network to process signals, the vocoder having a plurality of output rates, the vocoder comprising:

a rate determination module configured to select a target average data rate based on at least one network parameter and at least one external parameter; and

a rate implementation module configured to select between the plurality of output rates for coding each of outgoing frames of the signals to achieve an average output rate for the outgoing frames, as determined over a predetermined time period, wherein the average output rate is approximately equal to the target average data rate.

2. (Amended) The vocoder of claim 1, wherein the plurality of output rates include a full rate, a half rate, a quarter rate, and a eighth rate.

3. (Amended) The vocoder of claim 1, wherein the at least one network parameter is indicative of an available network capacity, and the at least one external parameter is indicative of one of a plurality of service classes.

4. (Amended) The vocoder of claim 1, wherein the plurality of service classes comprise a premium class, a standard class and an economy class.

5. (Amended) The vocoder of claim 4, wherein the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes, and wherein if the network cannot accommodate a service demand by one of the plurality of users at the desired service class of the one user, the target average data rates associated with the standard class and the economy class are reduced to accommodate the service demand.

6. (Amended) The vocoder of claim 4, wherein the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes,

and wherein if the network can accommodate a service demand by one of the plurality of users at the desired service class of the one user, the target average data rates associated with the premium class, the standard class and the economy class are increased.

7. (Amended) The vocoder of claim 2, wherein the rate implementation module comprises a switch, a full rate module, a half rate module, a quarter rate module, an eighth rate module, and a multiplexor, and wherein the switch selects between the modules for coding each of the outgoing frames, and the multiplexor receives the outgoing frames from each of the modules and serially outputs the outgoing frames on a single line.

8. (Amended) The vocoder of claim 1, wherein the at least one network parameter is indicative of an available network capacity, and the at least one external parameter is indicative of the subject matter of the signals.

9. (Amended) The vocoder of claim 8, wherein the subject matter can be one of voice category, data category, music category, and image video category.

10. (Amended) The vocoder of claim 9, wherein the network has a plurality of users, if the network cannot accommodate a service demand by one of the plurality of users at the target average date rate, the target average data rates associated with one or more categories of the subject matter are reduced to accommodate the service demand.

11. (Amended) The vocoder of claim 9, wherein the network has a plurality of users, if the network can accommodate a service demand by one of the plurality of users at the target average data rate, the target average data rates associated with one or more categories of the subject matter are increased.

28. (New) A method for use by a flexible variable rate vocoder in a network to process signals, the vocoder having a plurality of output rates, the method comprising:

selecting a target average data rate based on at least one network parameter and at least one external parameter; and

selecting between the plurality of output rates for coding each of outgoing frames of the signals to achieve an average output rate for the outgoing frames, as determined over a predetermined time period, wherein the average output rate is approximately equal to the target average data rate.

29. (New) The method of claim 28, wherein the plurality of output rates include a full rate, a half rate, a quarter rate, and a eighth rate.

30. (New) The method of claim 28, wherein the at least one network parameter is indicative of an available network capacity, and the at least one external parameter is indicative of one of a plurality of service classes.

31. (New) The method of claim 28, wherein the plurality of service classes comprise a premium class, a standard class and an economy class.

32. (New) The method of claim 31, wherein the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes, and wherein the method further comprising:

determining that the network cannot accommodate a service demand by one of the plurality of users at the desired service class of the one user; and

reducing the target average data rates associated with the standard class and the economy class to accommodate the service demand.

33. (New) The method of claim 31, wherein the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes, and wherein the method further comprising:

determining that the network can accommodate a service demand by one of the plurality of users at the desired service class of the one user; and

increasing the target average data rates associated with the premium class, the standard class and the economy class.

34. (New) The method of claim 28, wherein the at least one network parameter is indicative of an available network capacity, and the at least one external parameter is indicative of the subject matter of the signals.

35. (New) The method of claim 34, wherein the subject matter can be one of voice category, data category, music category, and image video category.

36. (New) The method of claim 35, wherein the network has a plurality of users, and the method further comprising:

determining that the network cannot accommodate a service demand by one of the plurality of users at the target average date rate; and

reducing the target average data rates associated with one or more categories of the subject matter to accommodate the service demand.

37. (New) The method of claim 35, wherein the network has a plurality of users, and the method further comprising:

determining that the network can accommodate a service demand by one of the plurality of users at the target average data rate; and

increasing the target average data rates associated with one or more categories of the subject matter.